Daily Diary Report by Bid Item

Contract No.: **04-0120F4**

Diary #: **523** **Const Calendar Day:** 911 **Date:** **07-Mar-2012** **Wednesday**
Inspector Name: **Bruce, Matt** **Title:** **Transportation Engineer**
Inspection Type: Intermittent
Shift Hours: 07:00 am 04:30 pm **Break:** 00:30 **Over Time:** 01:00
Federal ID:
Location:
Reviewer: **Schmitt, Alex** **Approved Date:** **Status:** Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** 40 - 50 **12 PM** 50 - 60 **4PM** 50 - 60
Precipitation 0.00" **Condition** Mostly sunny w/moderate winds

Working Day ☐ If no, explain:

Diary: Dispute ☐

Work description.

- Continued to prepare for surveying points set on the suspender brackets. A date was being planned to work at night with the total station since GPS was not going to be used due to a large geomagnetic storm in space where the satellites are affected by such occurrences. The K value or planetary index reached a 6 (scale of 1 to 9) which is the highest I have seen it since using GPS equipment starting in June of 2011. The sun released an intense solar flare classified as an X5.4 class yesterday March 6th.

- Shot the three brass caps in conjunction with the ABF surveyors for the remaining Hinge K closure section tie-down jacking operations. This operation started approximately at 8:30am and was completed just before lunch. See Jason Wilcox's diary for more details and comments related to the jacking operations, labor and equipment. The brass caps were shot a total of 5 times with the following details below:

8:40am - Prior to resuming jacking operations with
the load approximately at 3,200kips
11 = 57.942m
12 = 57.634m
13 = 57.333m

10:00am - Load increased to approximately 3,235kips
11 = 57.940m
12 = 57.632m
13 = 57.331m

10:50am - Load increased to approximately 3,500kips
11 = 57.927m
12 = 57.619m
13 = 57.319m

11:00am - Load increased to approximately 3,600kips
11 = 57.923m
12 = 57.615m
13 = 57.315m

11:15am - Lock-off check at the last recorded load
11 = 57.923m
12 = Didn't shoot

13 = 57.313m

It should be noted that the values that I used for control points JA1000 and JA1001 were 55.885m and 56.734m respectively. Conversely ABF surveyors used the values 55.881m for JA1000 and 56.729m for JA1001 claiming the previously agreed values changed due to recent movement in the W2 cap beam. They informed me that they came off of control point TWL270 holding 54.141m. The last time that I checked the elevations of JA1000 and JA1001 from control point TWL270 was in November 2011 verifying the elevations that I used today. Therefore the discrepancies in the final numbers would be attributed to this occurrence. The final values shot by ABF surveyor James Allen today were the following with my corrected values in parenthesis due to their claim:

11 = 57.918m (57.919m)
12 = 57.610m (57.611m)
13 = 57.309m (57.311m)

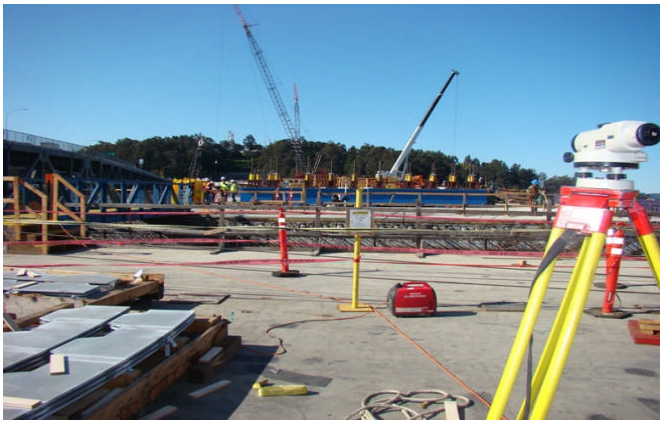
Both Caltrans and ABF surveyors agreed that the total amount of elevation change today was close to the calculated value of -17mm down for the applied loading. The average value of deflection for the three points was -19mm. To reiterate the point nomenclature is designated by the point row from the end of the cantilever followed by the position the point was staked-out on the bridge. The staked-out locations are 1 for the left offset of the centerline/W-Line, 2 for the centerline/W-Line, and 3 for the right offset of the centerline/W-Line.

- Attended the weekly Team Cable staff meeting in the conex box located on the SAS E-Line OBG near the south mainspan catwalk anchorage.

- Continued to work on a plan for surveying the west jacking saddle from the YBITS W-Line bridge since the line of sight from TWL270 has deteriorated, see photo below for additional details and comments. As stated yesterday control point TWL270 was used to originally set the jacking saddle.

- Continued to work on miscellaneous upcoming cable surveys such as compaction, cable band layout check, etc.

Attachment



View of the automatic level and the YBITS W-Line bridge while the final stage of the jacking operations was being completed.

Location where the total station would be set up to survey the west jacking saddle for a check and jacking operations during load transfer.

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Job Name: 04-0120F4 **Inspector Name** Bruce, Matt **Diary #:** 523 **Date:** 07-Mar-2012 Wednesday

Loading on the end of the Hinge K section and cantilever seen on VGO computer as the bridge was being loaded.

ABF jacking operations to pull down the YBITS W-Line bridge to the calculated position for the Hinge K closure section.